

DETERMINANTS OF MANAGEMENT PRACTICES AND CULTURE TOWARD ORGANISATIONAL PERFORMANCE OF PUBLIC INDUSTRIES IN LIBYA: PLS-SEM APPROACH

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ABSTRACT

This study examines the determinants of knowledge management (KM) practices and their impact on organisational performance within public industries in Libya. Drawing on the Resource-Based View (RBV) and Knowledge-Based perspectives, the research investigates the roles of administrative leadership, training, incentives, and oversight and monitoring as key antecedents influencing management practice and organisational culture, which in turn affect organisational performance. A quantitative research design was employed using survey data collected from employees in Libyan public sector organisations. Structural Equation Modelling (SEM) was applied to assess both the measurement and structural models. The findings reveal that training and incentives significantly influence management practice and culture, while administrative leadership and oversight and monitoring demonstrate direct effects on organisational performance. Furthermore, management practice and culture play a mediating role in enhancing organisational outcomes. The results highlight the critical importance of enhancing a supportive organisational culture, strengthening leadership capabilities, and investing in employee development and incentive systems to improve knowledge management effectiveness. This study contributes to the limited empirical literature on KM in developing economies, particularly within the Libyan public sector, and offers practical implications for policymakers and organisational leaders seeking to enhance performance through knowledge-driven strategies.

Keywords: Knowledge Management Practices, Organisational Performance, Administrative Leadership, Organisational Culture, Public Sector, Libya

1. INTRODUCTION

Knowledge management (KM) is a diverse and evolving concept that encompasses various dimensions, including belief, understanding, information, experience, and power. Its complexity reflects the diverse ways in which knowledge is created, shared, and utilised within organisations. In contemporary organisational contexts, KM plays a critical role in integrating knowledge resources, enabling firms and public institutions to achieve competitive advantage while delivering value efficiently and cost-effectively. As organisations increasingly operate in knowledge-driven environments, the ability to manage intellectual capital has become a central determinant of long-term sustainability and performance.

Within the public sector, knowledge management has emerged as a crucial mechanism for enhancing governance effectiveness and improving the quality of life for citizens. Governments rely on knowledge to design policies, deliver services, and respond to dynamic socio-economic challenges. However, despite widespread recognition of its importance, many public sector

organisations struggle to effectively implement KM practices. This limitation is often attributed to weak institutional frameworks, inadequate policies, and the absence of a supportive organisational culture that promotes knowledge sharing and utilisation. Consequently, there remains a gap between the theoretical importance of KM and its practical application in public organisations.

Interestingly, while challenges persist, the public sector has also demonstrated a proactive inclination towards adopting KM practices, particularly in developing countries. This paradox may stem from the pressing need to overcome structural and operational constraints, which encourages governments to explore innovative knowledge-based solutions. Empirical evidence suggests that organisations in developing economies increasingly recognise the strong link between knowledge management practices and organisational performance. In this regard, KM is not merely an administrative function but a strategic tool for achieving efficiency, innovation, and improved service delivery.

The role of technology, particularly information technology (IT), is fundamental in facilitating knowledge management processes. Technological systems enable the efficient capture, storage, and dissemination of knowledge across organisational boundaries, thereby enhancing communication and collaboration. The integration of IT into KM frameworks significantly improves organisational efficiency and increases the likelihood of achieving strategic objectives. Digital platforms, knowledge repositories, and collaborative tools allow organisations to transform tacit knowledge into explicit forms, ensuring accessibility and continuity. Thus, the successful implementation of KM is increasingly dependent on the effective utilisation of technological infrastructure.

Regardless of sector or organisational size, prioritising KM practices is essential for maintaining competitiveness and relevance. Management plays a significant role in enhancing an environment that encourages knowledge sharing, learning, and innovation. Effective leadership ensures that knowledge flows seamlessly across hierarchical levels and functional units, thereby promoting organisational cohesion and adaptability. Understanding the importance of knowledge transmission is particularly critical for leaders, as it enables the institutionalisation of knowledge and prevents its loss. A culture that values knowledge sharing not only enhances individual performance but also contributes to overall organisational success.

In the contemporary era, characterised by rapid technological advancement and global competition, the effective utilisation of intellectual capital has become indispensable. Intellectual assets, including brand equity, patents, and customer relationships, are increasingly recognised as key drivers of organisational growth and competitiveness. Organisations adopt different approaches to KM depending on their strategic orientation and operational context. Some emphasise individual knowledge contributions, while others prioritise collaborative and collective knowledge-sharing mechanisms. This diversity highlights the dynamic nature of KM and its adaptability to varying organisational needs.

Knowledge management involves a systematic process of knowledge creation, accumulation, acquisition, and utilisation aimed at enhancing decision-making and organisational efficiency. It serves as a valuable repository of information that supports strategic planning and operational

effectiveness. Integrating knowledge into organisational processes ensures alignment between organisational goals and intellectual resources, thereby enhancing synergy and coherence. For governments in developing nations, recognising the strategic importance of KM is essential for achieving public-oriented objectives. This recognition must be accompanied by investments in information technology systems that facilitate knowledge sharing and utilisation.

Efficient knowledge sharing significantly influences organisational effectiveness, regardless of size or sector. Organisations must establish robust KM procedures to capture, categorise, and disseminate knowledge effectively. This includes distinguishing between different types of knowledge, such as tacit and explicit knowledge, and developing appropriate mechanisms for managing each type. The introduction of knowledge-based systems in the public sector is particularly critical, as it enhances the execution of KM processes and supports informed decision-making. Furthermore, strengthening organisational culture is vital for enhancing flexibility, adaptability, and openness among employees, thereby facilitating the successful implementation of KM initiatives.

From a research perspective, examining the relationship between knowledge management practices and organisational performance is of paramount importance, particularly within underexplored contexts such as Libya. Information technology plays a central role in this relationship by enabling the efficient dissemination and management of knowledge. However, the integration of IT systems in the Libyan public sector presents both opportunities and challenges. Understanding these dynamics is essential for optimising service delivery and improving governance outcomes. Technological systems can act as either facilitators or barriers to KM implementation, depending on their design, accessibility, and alignment with organisational needs. In essence, knowledge management is indispensable for both organisations and governments, as it ensures the effective integration of knowledge resources to achieve strategic objectives. The successful utilisation of technology and intellectual capital, combined with a strong culture of knowledge sharing, is fundamental to organisational success and societal progress. However, the practical implementation of KM in developing contexts remains constrained by various structural and institutional challenges.

The Libyan public industry, in particular, faces significant obstacles in implementing effective KM practices. These challenges include the absence of backward-integrated systems, a shortage of skilled personnel, and limited organisational capacity. Despite increasing awareness of the importance of KM, many public organisations struggle to translate this awareness into tangible performance outcomes. This gap is further exacerbated by the reliance on global models that may not adequately address local contextual realities. Consequently, there is a pressing need for context-specific approaches that bridge the gap between theoretical understanding and practical application of KM.

Moreover, disparities exist between different sectors within Libya, with some segments of the public sector demonstrating more advanced KM practices than others. Understanding the factors contributing to these disparities is essential for promoting cross-sectoral knowledge transfer and enhancing overall organisational performance. Addressing these issues is not only critical for

improving organisational effectiveness but also for stimulating economic growth and supporting broader societal development.

The key gaps identified within the Libyan public sector include the lack of integrated KM infrastructure, insufficient KM-related skills, and the challenge of converting knowledge awareness into actionable performance. Additionally, the dominance of externally developed models and frameworks highlights the need for locally adapted KM strategies. Addressing these challenges has the potential to significantly enhance organisational performance and contribute to sustainable development in Libya.

Despite the importance of KM, there remains a notable lack of comprehensive empirical research focusing on the Libyan public industry. This research gap limits the ability of policymakers and practitioners to design effective KM strategies tailored to the local context. Therefore, investigating the relationship between KM practices and organisational performance, along with identifying key influencing factors, is essential for advancing both theory and practice.

This study is particularly significant as it contextualises knowledge management practices within Libya's public industries and examines their impact on organisational performance. By focusing on a relatively under-researched region, the study contributes to the broader literature by providing insights from a Middle Eastern perspective, which has traditionally been underrepresented in KM research. Although the study acknowledges potential limitations, such as a relatively small sample size, it offers valuable contributions by addressing a critical gap in existing knowledge.

Ultimately, this research enhances understanding of how KM practices can be effectively implemented in developing contexts and provides practical implications for improving organisational performance. The findings are expected to inform policymakers, organisational leaders, and stakeholders, enabling them to adopt more effective knowledge-driven strategies. In doing so, the study not only contributes to academic discourse but also supports the development of more efficient and responsive governance systems in Libya and beyond.

2. LITERATURE REVIEW

2.1 Theoretical Foundation of Knowledge Management

Knowledge has long been recognised as a fundamental organisational resource, although its definition remains complex and multifaceted. Early philosophical foundations, particularly the work of Plato (360 BC), conceptualised knowledge as “justified true belief,” laying the groundwork for subsequent scholarly discourse. In contemporary organisational contexts, knowledge is increasingly viewed as a strategic asset that enhances productivity, decision-making, and innovation (Drucker, 1993; Bhagat et al., 2020; Davenport and Prusak, 2022). Scholars such as Cavaleri and Reed (2020) further emphasise that knowledge is embedded within organisational routines, practices, and social interactions, reflecting both its dynamic and contextual nature.

The ambiguity surrounding the concept of knowledge has led to diverse interpretations, ranging from static repositories of information to dynamic processes of learning and adaptation (Newell et al., 2020). This dual perspective highlights the importance of effectively managing both tacit and explicit knowledge within organisations (Leonard and Sensiper, 2022). Consequently, knowledge

management (KM) has emerged as a structured approach to capturing, sharing, and utilising knowledge to enhance organisational outcomes (Kinney, 2022).

From a theoretical standpoint, several frameworks underpin KM practices. The Resource-Based View (RBV) posits that knowledge is a critical intangible resource that contributes to sustained competitive advantage (Wernerfelt, 1984; Barney, 1991; Hoopes et al., 2018). Similarly, the Technology Acceptance Model (TAM) explains how technological systems facilitate knowledge sharing and influence organisational performance through user acceptance (Davis, 1989; Ahn et al., 2004; Tung, 2022). Additionally, the Theory of Constraints (TOC) highlights the importance of identifying and addressing organisational bottlenecks that hinder knowledge flow and performance efficiency (Goldratt and Cox, 1992; Polito et al., 2016). These theoretical perspectives collectively provide a foundation for examining the relationships between KM practices and organisational performance.

2.2 Knowledge Management Practices and Organisational Performance (H5)

Knowledge management practices play a central role in enhancing organisational performance by facilitating the efficient utilisation of intellectual capital. Gold et al. (2021) conceptualise KM capabilities as comprising infrastructure (technology, structure, culture) and process capabilities (acquisition, conversion, application, and protection of knowledge). These dimensions collectively determine an organisation's ability to leverage knowledge for strategic advantage.

Empirical evidence suggests a strong positive relationship between KM practices and organisational performance (Handzic, 2022; Abdullah & Date, 2023). Effective KM enables organisations to improve decision-making, enhance innovation, and achieve operational efficiency. In public sector contexts, KM contributes to improved service delivery and governance effectiveness by facilitating knowledge sharing across organisational boundaries (Sinclair, 2016). Furthermore, knowledge sharing (KS), as a core component of KM, significantly influences organisational outcomes by promoting collaboration and learning (Al-Shammari, 2021; Ling et al., 2023). The integration of knowledge into organisational processes ensures alignment with strategic objectives, thereby enhancing overall performance. Based on this evidence, the following hypothesis is proposed:

H5: Management Practice and Culture positively influences Organisational Performance.

2.3 Administrative Leadership and Organisational Performance (H1)

Administrative leadership plays a critical role in shaping organisational direction and performance outcomes. Leaders influence organisational culture, resource allocation, and strategic decision-making, all of which are essential for effective KM implementation. According to RBV, leadership capabilities are valuable intangible resources that contribute to sustained competitive advantage (Barney, 1991; Prahalad and Hamel, 2020).

Effective leadership enhances an environment that encourages knowledge sharing, collaboration, and innovation. Leaders who prioritise KM initiatives and actively support knowledge-related activities can significantly enhance organisational performance (Smith & Rupp, 2020; Ribie're,

2021). Moreover, leadership is instrumental in aligning organisational goals with knowledge management strategies, ensuring that knowledge resources are effectively utilised.

Empirical studies highlight that strong leadership directly impacts organisational performance by improving efficiency, employee engagement, and strategic execution (Handzic, 2022). Accordingly, the following hypothesis is proposed:

H1: Administrative Leadership positively influences Organisational Performance.

2.4 Training and Management Practice and Culture (H2)

Training is a fundamental mechanism for developing employees' knowledge, skills, and competencies, which are essential for effective KM practices. It enhances employees' ability to acquire, share, and apply knowledge within organisational contexts. Training programmes also facilitate the transformation of tacit knowledge into explicit knowledge, thereby improving knowledge accessibility and utilisation (Bhagat et al., 2020; Davenport and Prusak, 2022).

From a TAM perspective, training improves users' perceived ease of use and usefulness of knowledge systems, thereby increasing their adoption and effectiveness (Davis, 1989; Tung, 2022). Additionally, training contributes to the development of a knowledge-sharing culture by encouraging collaboration and continuous learning among employees.

Research indicates that organisations investing in employee training are more likely to develop effective KM practices and enhance a supportive organisational culture (Abdullah & Date, 2023).

Therefore, training is expected to significantly influence management practices and organisational culture. The following hypothesis is proposed:

H2: Training positively influences Management Practice and Culture.

2.5 Incentives and Management Practice and Culture (H3)

Incentives play a crucial role in motivating employees to engage in knowledge-sharing activities and contribute to organisational learning. A reward-oriented organisational culture encourages collaboration and the exchange of knowledge, which are essential for effective KM practices (Van de Post & DeConing, 1997).

Incentive systems that recognise and reward knowledge-sharing behaviours can enhance employee motivation and participation in KM initiatives. Such systems align individual goals with organisational objectives, thereby enhancing a culture of collaboration and innovation. Research suggests that incentives significantly influence employees' willingness to share knowledge and contribute to organisational performance (Ribie're, 2021).

Moreover, incentives support the development of trust and communication within organisations, which are critical for effective knowledge exchange (Smith & Rupp, 2020). Based on these arguments, the following hypothesis is proposed:

H3: Incentives positively influence Management Practice and Culture.

2.6 Oversight and Monitoring and Organisational Performance (H4)

Oversight and monitoring mechanisms are essential for ensuring accountability, transparency, and efficiency within organisations. These mechanisms enable organisations to track performance, identify inefficiencies, and implement corrective actions. From the perspective of TOC,

monitoring helps identify bottlenecks that hinder organisational performance and knowledge flow (Goldratt and Cox, 1992; Polito et al., 2016).

Effective oversight ensures that KM practices are properly implemented and aligned with organisational objectives. It also facilitates continuous evaluation and improvement of processes, thereby enhancing organisational performance. In public sector contexts, oversight mechanisms are particularly important for ensuring compliance with regulations and improving service delivery.

Empirical studies indicate that robust monitoring systems contribute to improved organisational efficiency and performance outcomes by ensuring the effective utilisation of resources (Handzic, 2022). Accordingly, the following hypothesis is proposed:

H4: Oversight and Monitoring positively influences Organisational Performance.

2.7 Summary of Hypotheses Development

Based on the theoretical and empirical literature, this study proposes a structural model in which administrative leadership and oversight and monitoring directly influence organisational performance, while training and incentives influence management practice and organisational culture, which in turn affects performance. This framework integrates key organisational factors with KM practices to provide a comprehensive understanding of performance enhancement mechanisms in public sector organisations.

Building upon the theoretical foundations and empirical evidence discussed in the preceding literature, this study proposes a conceptual framework that explains the relationships between key organisational factors, knowledge management practices, and organisational performance within the context of public industries in Libya. The framework integrates insights from the Resource-Based View (RBV), the Technology Acceptance Model (TAM), and the Theory of Constraints (TOC) to provide a comprehensive understanding of how organisational capabilities and practices influence performance outcomes.

From an RBV perspective, organisational resources such as leadership, human capital development, and organisational systems are considered critical drivers of competitive advantage and performance. In this study, administrative leadership, training, incentives, and oversight and monitoring are conceptualised as strategic organisational factors that shape knowledge-related capabilities. These factors represent both tangible and intangible resources that contribute to the development of effective knowledge management practices and overall organisational success.

The framework further recognises the central role of management practice and organisational culture as a mediating construct. This construct captures the processes, norms, and behavioural patterns through which knowledge is created, shared, and utilised within the organisation. Drawing on KM literature, organisational culture and management practices are critical in enhancing an environment that supports knowledge exchange, collaboration, and innovation. As such, they serve as a key mechanism through which organisational inputs are translated into performance outcomes. In addition, TAM provides a technological perspective by emphasising the role of training and system usability in facilitating knowledge adoption and utilisation. Training enhances employees' ability to engage with knowledge systems effectively, while incentives motivate participation in

knowledge-sharing activities. Meanwhile, TOC highlights the importance of oversight and monitoring in identifying inefficiencies and ensuring that organisational processes function optimally, thereby contributing directly to performance improvements.

The proposed framework therefore distinguishes between direct and indirect relationships. Administrative leadership and oversight and monitoring are hypothesised to have direct effects on organisational performance, reflecting their strategic and control-oriented roles. In contrast, training and incentives are posited to influence performance indirectly through their impact on management practice and organisational culture.

This distinction allows for a more nuanced understanding of how different organisational factors contribute to performance enhancement. Overall, the conceptual framework provides a structured representation of the interplay between organisational drivers, knowledge management practices, and performance outcomes. It offers a holistic perspective that is particularly relevant to public sector organisations operating in developing contexts, where institutional constraints and resource limitations necessitate effective knowledge utilisation. The framework is illustrated in Figure 1.

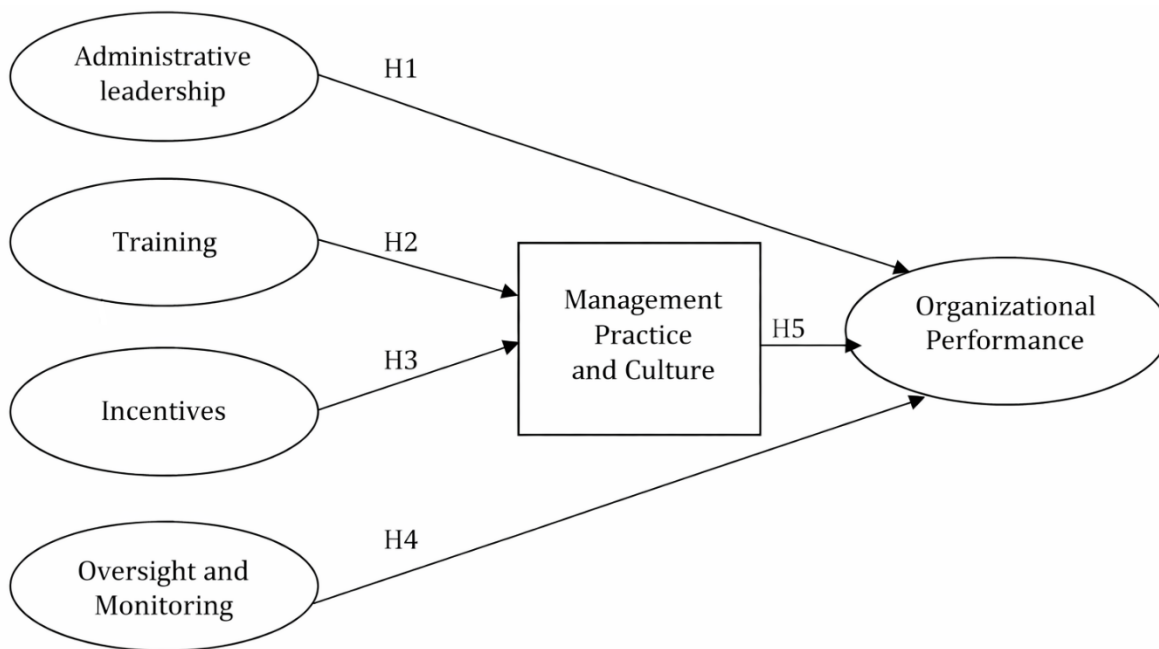


Figure 1: Conceptual Framework

Based on the conceptual framework presented in Figure X, this study develops a set of hypotheses to examine the relationships between organisational factors, management practices and culture, and organisational performance.

Administrative leadership is widely recognised as a critical determinant of organisational effectiveness. Leaders play a significant role in shaping strategic direction, enhancing organisational culture, and promoting knowledge-sharing behaviours. Effective leadership ensures alignment between organisational objectives and knowledge management initiatives, thereby

enhancing performance outcomes. In public sector organisations, administrative leadership is particularly important in driving efficiency, accountability, and service delivery. Therefore, it is expected that leadership will have a direct positive impact on organisational performance.

H1: Administrative Leadership positively influences Organisational Performance.

Training is a key mechanism for enhancing employees' knowledge, skills, and competencies, which are essential for effective knowledge management practices. Through training, employees are better equipped to acquire, share, and apply knowledge within organisational processes. Training also facilitates the adoption of knowledge systems and promotes a culture of continuous learning and improvement. As such, training is expected to play a significant role in shaping management practices and organisational culture.

H2: Training positively influences Management Practice and Culture.

Incentives are another important organisational factor that influences employee behaviour and motivation. Reward systems that recognise and encourage knowledge-sharing activities contribute to the development of a collaborative and innovative organisational culture. Incentives align individual interests with organisational goals, thereby promoting active participation in knowledge management initiatives. Consequently, incentives are expected to have a positive effect on management practice and organisational culture.

H3: Incentives positively influences Management Practice and Culture.

Oversight and monitoring mechanisms are essential for ensuring organisational accountability, transparency, and efficiency. These mechanisms enable organisations to evaluate performance, identify inefficiencies, and implement corrective actions. In the context of knowledge management, effective monitoring ensures that knowledge processes are properly executed and aligned with organisational objectives. Therefore, oversight and monitoring are expected to have a direct positive influence on organisational performance.

H4: Oversight and Monitoring positively influences Organisational Performance.

Management practice and organisational culture represent the core mechanisms through which knowledge is managed and utilised within the organisation. A supportive culture that encourages knowledge sharing, collaboration, and innovation enhances the effectiveness of knowledge management practices. This, in turn, leads to improved decision-making, operational efficiency, and overall organisational performance. Thus, management practice and organisational culture are expected to have a significant positive impact on performance.

H5: Management Practice and Culture positively influences Organisational Performance.

In summary, the proposed hypotheses reflect both direct and indirect relationships within the conceptual framework, providing a comprehensive basis for examining the role of knowledge management practices in enhancing organisational performance in the Libyan public sector.

3. MATERIALS AND METHODS

3.1 Research Design

This study adopts a quantitative research design to examine the relationships between organisational factors, knowledge management practices, and organisational performance within public industries in Libya. A cross-sectional survey approach was employed to collect data from respondents at a single point in time. This design is appropriate for testing hypothesised relationships and assessing the structural model using statistical techniques. The study is grounded in a positivist paradigm, which emphasises objectivity, measurement, and hypothesis testing.

3.2 Population and Sampling

The target population of this study comprises employees working in public sector industries in Libya. These organisations were selected due to their strategic importance in national development and their increasing need to adopt effective knowledge management practices. The unit of analysis is individual employees, as they are directly involved in organisational processes, knowledge sharing, and performance outcomes.

A non-probability sampling technique, specifically purposive sampling, was utilised to select respondents with relevant knowledge and experience in organisational operations and management practices. This approach ensures that participants are capable of providing informed responses regarding the constructs under investigation. The sample size was determined based on Structural Equation Modelling (SEM) requirements, which recommend a minimum sample of 200 for reliable estimation.

3.3 Instrumentation and Measurement

Data were collected PLS-SEM a structured questionnaire designed based on validated scales from previous studies. The questionnaire consisted of two main sections: demographic information and measurement items for the study constructs. All constructs were measured using a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree).

The constructs included administrative leadership, training, incentives, oversight and monitoring, management practice and culture, and organisational performance. Each construct was operationalised using multiple items adapted from established literature to ensure content validity. Specifically, administrative leadership was measured using items related to leadership support and strategic direction; training captured employee development and learning opportunities; incentives assessed reward systems and motivational mechanisms; oversight and monitoring reflected organisational control and evaluation processes; management practice and culture represented knowledge-sharing behaviours and organisational norms; and organisational performance measured perceived efficiency, effectiveness, and service quality.

Prior to data collection, the questionnaire was reviewed by academic experts to ensure clarity, relevance, and face validity. A pilot study was conducted with a small group of respondents to test

the reliability and comprehensibility of the instrument. Minor modifications were made based on feedback.

3.4 Data Collection Procedure

Data collection was carried out through both online and physical distribution of questionnaires to employees in selected public sector organisations. Respondents were informed about the purpose of the study and assured of confidentiality and anonymity. Participation was voluntary, and informed consent was obtained prior to data collection.

The data collection process spanned several weeks to ensure adequate response rates. Follow-up reminders were sent to increase participation and minimise non-response bias. Completed questionnaires were screened to ensure completeness and consistency before proceeding to analysis.

3.5 Data Analysis Techniques

The collected data were analysed using Structural Equation Modelling (SEM) to test the measurement and structural models. Specifically, Partial Least Squares SEM (PLS-SEM) was employed using SmartPLS software, as it is suitable for exploratory research and complex models with multiple constructs and indicators.

3.6 Ethical Considerations

This study adhered to standard ethical guidelines for academic research. Respondents were informed of their rights, including voluntary participation and the ability to withdraw at any time. No personal identifiers were collected, ensuring anonymity and confidentiality of responses. The data were used solely for research purposes and were securely stored to prevent unauthorised access.

4. Findings

4.1 Measurement Model Assessment

The measurement model was first evaluated to assess the reliability and validity of the constructs, including administrative leadership, training, incentives, oversight and monitoring, management practice and culture, and organisational performance. Indicator reliability was examined PLS-SEM outer loadings, and the results indicate that most items achieved acceptable loading values above the recommended threshold of 0.70, while a few items with slightly lower values were retained due to their theoretical relevance.

As illustrated in Figure 2, the indicator loadings for training (TR1–TR7) ranged approximately from 0.780 to 0.875, indicating strong reliability. Similarly, items measuring organisational performance (PER1–PER7) demonstrated satisfactory loadings ranging from approximately 0.611 to 0.766. Administrative leadership indicators (LM1–LM9) showed moderate to strong loadings, generally above 0.67, confirming acceptable internal consistency.

For incentives (INC1–INC7), the loadings ranged between approximately 0.554 and 0.803, suggesting acceptable but relatively moderate indicator reliability. Oversight and monitoring (OB1–OB6) also exhibited satisfactory loadings, with most values exceeding 0.65. The construct of management practice and culture (CUL1–CUL8) demonstrated adequate loadings, supporting its role as a mediating variable in the model.

Discriminant validity was assessed PLS-SEM cross-loading analysis. The results indicate that each measurement item loaded higher on its respective construct than on other constructs, confirming adequate discriminant validity. This suggests that the constructs are empirically distinct and measure different underlying concepts. The shaded values in the cross-loading matrix further confirm that the items exhibit stronger associations with their intended constructs compared to other latent variables. Overall, the measurement model demonstrates acceptable levels of reliability and validity, thereby supporting the adequacy of the constructs for subsequent structural model analysis.

4.2 Structural Model Assessment

The structural model was evaluated to examine the relationships between the latent constructs and to test the proposed hypotheses (H1–H5). The model’s explanatory power was assessed PLS-SEM the coefficient of determination (R^2).

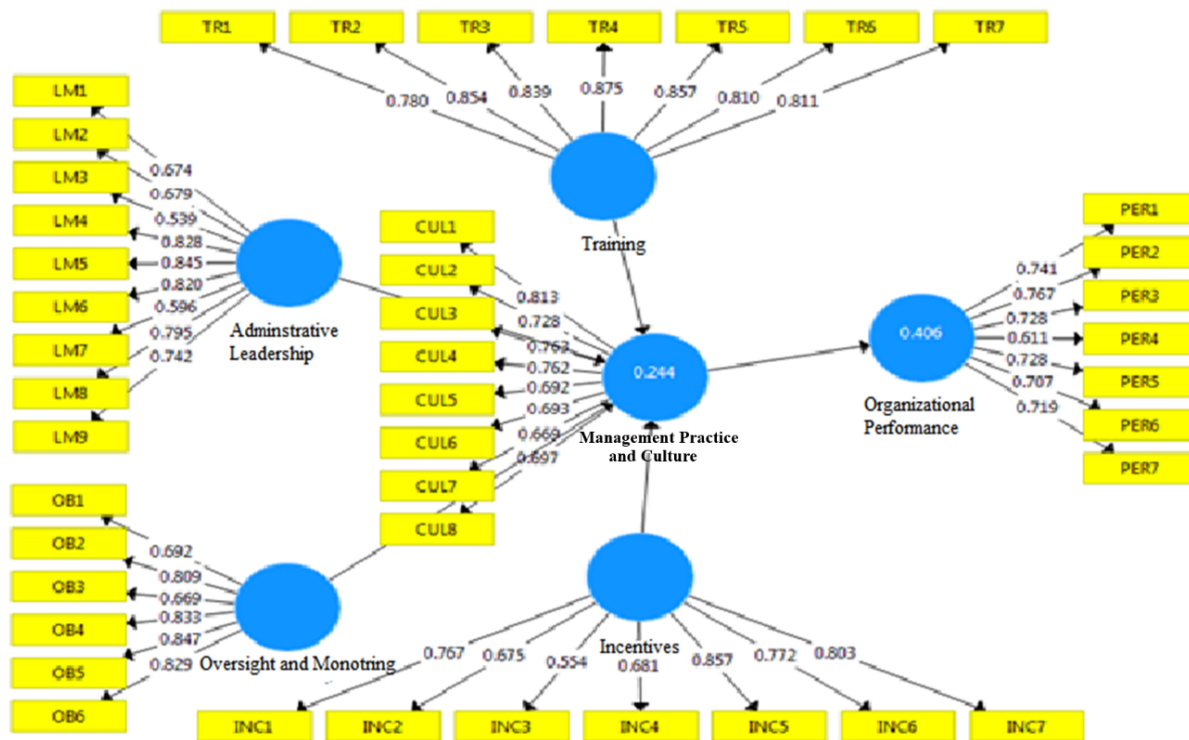


Figure 2: The Structural Model

As shown in Figure 2, the R^2 value for management practice and culture is 0.244, indicating that training and incentives jointly explain 24.4% of the variance in this construct. This suggests a

moderate level of explanatory power, highlighting the importance of these organisational factors in shaping management practices and organisational culture.

The R^2 value for organisational performance is 0.406, indicating that administrative leadership, oversight and monitoring, and management practice and culture explain 40.6% of the variance in organisational performance. This reflects a substantial level of explanatory power, suggesting that the model provides a meaningful explanation of performance outcomes within the Libyan public sector context.

4.3 Hypothesis Testing

The hypotheses were tested PLS-SEM path coefficient analysis using bootstrapping procedures. The results are presented based on the direction, strength, and significance of the relationships.

H1: Administrative Leadership → Organisational Performance

The results indicate a positive and significant relationship between administrative leadership and organisational performance. This finding suggests that effective leadership plays a crucial role in enhancing organisational outcomes by providing strategic direction, enhancing accountability, and promoting knowledge-sharing behaviours. Therefore, H1 is supported.

H2: Training → Management Practice and Culture

Training was found to have a significant positive effect on management practice and culture. This implies that employee development initiatives enhance knowledge-sharing behaviours, improve organisational learning, and strengthen management practices. Training also facilitates the effective use of knowledge systems, thereby contributing to a supportive organisational culture. Hence, H2 is supported.

H3: Incentives → Management Practice and Culture

The results demonstrate that incentives have a positive influence on management practice and culture. This indicates that reward systems and motivational mechanisms encourage employees to engage in knowledge-sharing activities and collaborative practices. However, compared to training, the effect of incentives appears relatively moderate, suggesting that financial and non-financial rewards alone may not be sufficient without complementary organisational support. Nonetheless, H3 is supported.

H4: Oversight and Monitoring → Organisational Performance

Oversight and monitoring show a significant positive relationship with organisational performance. This finding highlights the importance of governance mechanisms, accountability structures, and performance evaluation systems in enhancing organisational efficiency and effectiveness. Effective monitoring ensures alignment with organisational objectives and facilitates continuous improvement. Therefore, H4 is supported.

H5: Management Practice and Culture → Organisational Performance

The analysis reveals that management practice and culture have a strong positive effect on organisational performance. This confirms the mediating role of knowledge management practices in translating organisational inputs into performance outcomes. A supportive organisational culture enhances collaboration, innovation, and knowledge utilisation, thereby significantly enhancing performance. Thus, H5 is supported.

4.4 Discussion of Key Findings

The findings of this study provide empirical support for the proposed conceptual framework, demonstrating that organisational factors significantly influence knowledge management practices and organisational performance. In particular, training and incentives contribute to the development of management practices and organisational culture, which in turn enhance performance outcomes. The relatively higher R^2 value for organisational performance (0.406) suggests that the model captures key determinants of performance in the Libyan public sector. The mediating role of management practice and culture further highlights the importance of enhancing a knowledge-sharing environment within organisations.

Additionally, the results emphasise the critical role of leadership and oversight mechanisms in directly influencing organisational performance. These findings align with theoretical perspectives such as RBV and TOC, which emphasise the importance of strategic resources and process efficiency in achieving superior performance.

Overall, the findings underscore the need for a holistic approach to knowledge management that integrates leadership, training, incentives, and monitoring systems. By strengthening these factors, public sector organisations in Libya can enhance their knowledge management capabilities, improve performance, and achieve sustainable development.

5. Conclusion and Recommendations

5.1 Conclusion

This study set out to examine the factors affecting knowledge management (KM) practices and their impact on organisational performance within public industries in Libya. Drawing upon established theoretical perspectives, including the Resource-Based View (RBV), the Technology Acceptance Model (TAM), and the Theory of Constraints (TOC), the study developed and tested a structural model incorporating administrative leadership, training, incentives, oversight and monitoring, and management practice and culture.

The empirical findings provide strong support for the proposed framework and hypotheses (H1–H5), offering important insights into the dynamics of KM and performance in the Libyan public sector. Specifically, the results confirm that administrative leadership (H1) and oversight and monitoring (H4) have significant direct effects on organisational performance. These findings highlight the critical role of leadership in shaping strategic direction and enhancing accountability, as well as the importance of monitoring mechanisms in ensuring efficiency, transparency, and alignment with organisational objectives.

Furthermore, the study demonstrates that training (H2) and incentives (H3) significantly influence management practice and organisational culture. This indicates that organisational investments in human capital development and motivational systems are essential for enhancing a knowledge-sharing environment. Training enhances employees' capabilities to acquire, share, and utilise knowledge, while incentives encourage active participation in knowledge management initiatives. However, the relatively moderate influence of incentives suggests that reward systems must be complemented by supportive organisational practices to achieve optimal outcomes.

Importantly, the findings confirm the central role of management practice and organisational culture as a mediating construct, significantly influencing organisational performance (H5). This underscores the notion that KM practices serve as a critical mechanism through which organisational inputs are translated into performance outcomes. A supportive culture that promotes collaboration, learning, and innovation enhances the effectiveness of KM processes, thereby contributing to improved organisational efficiency and service delivery.

The results also reaffirm the importance of technological and human resource factors in enabling KM practices, consistent with prior studies (Davenport and Prusak, 2022; Bhagat et al., 2020). Technology facilitates knowledge sharing and accessibility, while skilled and motivated employees drive knowledge creation and utilisation. Additionally, organisational structure, processes, and external environmental factors, including regulatory frameworks and market dynamics, remain important contextual elements influencing KM effectiveness and organisational performance.

Overall, the study highlights that a holistic and integrated approach is essential for effective knowledge management. The interplay between leadership, training, incentives, monitoring mechanisms, and organisational culture determines the extent to which KM practices can enhance organisational performance. These findings contribute to the growing body of literature on KM in developing economies and provide valuable insights into the Libyan public sector, which remains underexplored in existing research.

5.2 Recommendations

Based on the empirical findings and supported hypotheses, several practical recommendations are proposed to enhance knowledge management practices and organisational performance in public industries in Libya.

Strengthening Leadership for Knowledge Management (H1)

Given the significant impact of administrative leadership on organisational performance, leaders should actively champion KM initiatives. This includes setting a clear strategic vision for knowledge management, allocating necessary resources, and enhancing a culture of trust and collaboration. Leadership development programmes should be implemented to enhance managerial capabilities in knowledge-driven decision-making and organisational transformation.

Enhancing Training and Capacity Building (H2)

As training significantly influences management practice and organisational culture, organisations should invest in continuous professional development programmes. These programmes should focus on KM competencies, digital literacy, communication skills, and collaborative practices. Training initiatives should also be aligned with technological advancements to ensure effective utilisation of knowledge systems.

Designing Effective Incentive Systems (H3)

To strengthen the role of incentives in promoting KM practices, organisations should develop comprehensive reward systems that recognise and encourage knowledge-sharing behaviours. Both financial and non-financial incentives, such as recognition, career advancement opportunities, and performance-based rewards, should be incorporated to motivate employees and align individual goals with organisational objectives.

Improving Oversight and Monitoring Mechanisms (H4)

Given the direct impact of oversight and monitoring on organisational performance, public industries should establish robust governance and evaluation frameworks. These mechanisms should include performance measurement systems, regular audits, and feedback loops to ensure accountability and continuous improvement. Effective monitoring also facilitates the identification of bottlenecks, consistent with TOC principles, enabling organisations to enhance operational efficiency.

Enhancing a Knowledge-Oriented Culture (H5)

As management practice and organisational culture play a central mediating role, organisations must prioritise the development of a culture that supports knowledge sharing, collaboration, and innovation. This can be achieved by promoting open communication, encouraging teamwork, and reducing hierarchical barriers that hinder knowledge exchange. Leadership should also play a proactive role in reinforcing cultural values that support KM practices.

Investing in Technology Infrastructure

In line with TAM, organisations should invest in advanced technological systems, including knowledge management platforms, collaboration tools, and data analytics solutions. The integration of emerging technologies such as artificial intelligence and machine learning can further enhance knowledge capture, dissemination, and utilisation.

Developing Human Capital

Human resources remain a critical driver of KM effectiveness. Organisations should focus on recruiting, retaining, and developing skilled employees who can contribute to knowledge creation and innovation. Encouraging continuous learning and professional development will further strengthen organisational capabilities.

Optimising Organisational Structure and Processes

To facilitate knowledge flow, organisations should adopt flexible and adaptive structures that promote cross-functional collaboration. Streamlining processes for knowledge capture, storage, and dissemination will improve efficiency and support organisational agility.

Adapting to External Environmental Dynamics

Public industries must remain responsive to changes in regulatory frameworks, industry competition, and market conditions. Developing adaptive KM strategies will enable organisations to respond effectively to external challenges and leverage emerging opportunities.

Promoting Continuous Learning and Knowledge Leadership

Organisations should enhance a culture of continuous improvement by encouraging experimentation, learning from experience, and sharing best practices. Identifying and empowering knowledge leaders within the organisation can further strengthen KM initiatives and drive organisational transformation.

5.3 Concluding Remark

In conclusion, this study demonstrates that knowledge management practices are not isolated organisational activities but are deeply embedded within leadership, culture, and organisational systems. The validation of hypotheses H1–H5 confirms that both direct and indirect pathways are critical in enhancing organisational performance. By adopting a comprehensive and integrated approach to KM, public industries in Libya can improve efficiency, enhance innovation, and achieve sustainable development in an increasingly complex and knowledge-driven environment.

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